

# **REFERENCE CELLS FOR TCCT BASED MEMORY CELLS**

## **Abstract of the Disclosure**

A reference cell produces a voltage rise on a bit line that is proportional to, and preferably half of, the voltage rise on another bit line produced by a TCCT based memory cell in an "on" state. The reference cell includes an NDR device, a gate-like device disposed adjacent to the NDR device, a first resistive element coupled between the NDR device and the bit line, and a second resistive element coupled between a sink and the bit line. Resistances of the first and second resistive elements are about equal and about twice as much as the resistance of a pass transistor of the a TCCT based memory cell.